

WAKABAYASHI *et al.*, SN 10/715,387  
Second Prelim. Amdt. dated 02/10/2005

500.8056CC4/E4873-08  
Page 3

**IN THE CLAIMS:**

1.-19. (Cancelled)

20. (New) A reproducing apparatus for reproducing information recorded on a recording medium, comprising:

a laser light to irradiate a beam to the recording medium;  
a detector to detect an optical change from the recording medium; and  
an equalization circuit for executing an equalization processing to a reproducing signal generated by the optical change,  
wherein the equalization circuit is arranged to operate such that the smaller an amplitude of the reproducing signal, the greater an equalization coefficient that is applied.

21. (New) A method for reproducing information according to Claim 20, wherein the greater equalization coefficient is used for a short mark, and a smaller equalization coefficient is used for a long mark.

22. (New) A method for reproducing information according to Claim 20, wherein equalization coefficient changes constantly.

23. (New) A reproducing apparatus for reproducing information according to Claim 20, wherein the equalization coefficient is changed dynamically during reproducing information.

WAKABAYASHI *et al.*, SN 10/715,387  
Second Prelim. Amdt. dated 02/10/2005

500.8056CC4/E4873-08  
Page 4

24. (New) A reproducing apparatus for reproducing information according to Claim 20, comprising executing the equalization circuit includes 3-tap equalization processing, wherein each tap includes a plurality of selectable equalization coefficients.

25. (New) A reproducing apparatus for reproducing information according to Claim 24, wherein the plurality of selectable equalization coefficients of a tap are dynamically selectable during reproducing information.

26. (New) A reproducing apparatus for reproducing information according to Claim 20, comprising executing the equalization circuit includes 5-tap equalization processing, wherein each tap includes a plurality of selectable equalization coefficients.

27. (New) A reproducing apparatus for reproducing information according to Claim 26, wherein the plurality of selectable equalization coefficients of a tap are dynamically selectable during reproducing information.

28. (New) A reproducing apparatus for reproducing information recorded on a recording medium, comprising:

- a laser light to irradiate a beam to the recording medium;
- a detector to detect an optical change from the recording medium; and
- an equalization circuit for executing an equalization processing to a reproducing signal generated by the optical change;

WAKABAYASHI *et al.*, SN 10/715,387  
Second Prelim. Amdt. dated 02/10/2005

500.8056CC4/E4873-08  
Page 5

wherein the equalization circuit has a plurality of amplitude regulation circuits and a plurality of delay circuits, at least one of the amplitude regulation circuits executes non-linear equalization, and the small gain is used for a long mark in non-linear equalization.

29. (New) A reproducing apparatus for reproducing information according to Claim 28, wherein the equalization coefficient is changed dynamically during reproducing information.

30. (New) A reproducing apparatus for reproducing information according to Claim 28, comprising executing the equalization circuit includes 3-tap equalization processing, wherein each tap includes a plurality of selectable equalization coefficients.

31. (New) A reproducing apparatus for reproducing information according to Claim 30, wherein the plurality of selectable equalization coefficients of a tap are dynamically selectable during reproducing information.

32. (New) A reproducing apparatus for reproducing information according to Claim 28, comprising executing the equalization circuit includes 5-tap equalization processing, wherein each tap includes a plurality of selectable equalization coefficients.

WAKABAYASHI *et al.*, SN 10/715,387  
Second Prelim. Amdt. dated 02/10/2005

500.8056CC4/E4873-08  
Page 6

33. (New) A reproducing apparatus for reproducing information according to Claim 32, wherein the plurality of selectable equalization coefficients of a tap are dynamically selectable during reproducing information.